UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,304	04/04/2001	Hemant Agrawal	03493.00184	2543

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EXAMINER
MATTIS, JASON E

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/825,304	AGRAWAL ET AL.
		Examiner	Art Unit
		Jason E Mattis	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-6 and 8-18* is/are rejected.

7) ☒ Claim(s) *7, 19-20* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *11/01,4/02,10/03*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

2.   Claims 1-6 and 8-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Singh et al. ("Interworking Between SIP/SDP and H.323") in

view of Baker et al. (U.S. Pat. 6359896).

With respect to claim 1, Singh et al. discloses a method of interworking

between an H.323 based network and a session initiation protocol based network

(See the abstract of Singh et al. for reference to interworking between SIP

and H.323). Singh et al. also discloses receiving at an interworking server a set-

up request from an H.323 endpoint **(See section 5.2.3 and Figure 10 of Singh**

et al. for reference to an interworking gateway receiving a SETUP message

from an H.323 terminal). Singh et al. further discloses transmitting a

corresponding invite message to an addressed SIP endpoint **(See section 5.2.3**

and Figure 10 of Singh et al. for reference to sending an SIP INVITE request

to an SIP terminal in response to receiving the SETUP message). Singh et

al. also discloses receiving a ringing response message from the SIP endpoint

and transmitting a corresponding alert message to the H.323 endpoint **(See section A.2.5 of Singh et al. for reference to the IFW receiving an Alerting, or ringing, response from the SIP terminal and sending a corresponding Alerting message to the H.323 terminal)**. Singh et al. further discloses receiving an OK message from the SIP endpoint and transmitting a connect message to the H.323 endpoint **(See section 5.2.3 and Figure 10 of Singh et al. for reference to receiving an OK message from the SIP terminal and transmitting a CONNECT message to the H.323 terminal)**. Singh et al. also discloses negotiating the connect message utilizing an H.245 protocol **(See section 5.2.3 of Singh et al. for reference to negotiating the message using H.245 protocol)**. Singh et al. further discloses transmitting an ACK message to the SIP endpoint **(See section 5.2.3 and Figure 10 of Singh et al. for reference to the IFW transmitting an ACK message to the SIP terminal)**. Singh et al. also discloses communicating between the H.323 endpoint and the SIP endpoint utilizing realtime transport protocol **(See section 5.2.3 of Singh et al. for reference to communicating between the H.323 and SIP terminals using RTP)**. Singh et al. does not specifically disclose a data processor implementing a state machine stored in a memory of the interworking server.

With respect to claim 8, Singh et al. discloses a method of interworking between a session initiation protocol based network and an H.323 based network **(See the abstract of Singh et al. for reference to interworking between SIP and H.323)**. Singh et al. also discloses receiving an invite message from an SIP endpoint and transmitting a corresponding setup message to an addressed

H.323 endpoint **(See section 5.2.3 and Figure 9 of Singh et al. for reference to sending a SETUP message to an H.323 terminal in response to receiving an INVITE message from a SIP terminal)**. Singh et al. further discloses receiving an alerting message from the H.323 endpoint and transmitting a corresponding ringing message to the SIP endpoint **(See section A.1.2 of Singh et al. for reference to the IFW receiving an Alerting message from the H.323 terminal and sending a corresponding Alerting, or ringing, message to the SIP terminal in response)**. Singh et al. also discloses receiving a connect request message and an H.245 protocol and transmitting an OK message to the SIP endpoint **(See section 5.2.3 and Figure 9 of Singh et al. for reference to receiving a CONNECT request message from the H.323 terminal, negotiating the message using H.245 protocol, and sending an OK message to the SIP terminal)**. Singh et al. further discloses receiving an ACK message **(See section 5.2.3 and Figure 9 of Singh et al. for reference to receiving an ACK message from the SIP terminal)**. Singh et al. also discloses communicating between the SIP endpoint and the H.323 endpoint utilizing realtime transport protocol **(See section 5.2.3 of Singh et al. for reference to communicating between the H.323 and SIP terminals using RTP)**. Singh et al. does not specifically disclose a data processor implementing a state machine stored in a memory of the interworking server.

With respect to claim 14, Singh et al. discloses a method of interworking between a first protocol and a second protocol based network **(See the abstract of Singh et al. for reference to interworking between SIP and H.323)**. Singh

et al. also discloses receiving at an interworking gateway server a request from

an endpoint in the first or second protocol based networks **(See section 5.2.3**

and Figure 10 of Singh et al. for reference to an interworking gateway

receiving a SETUP message, which is a request, from an H.323 terminal).

Singh et al. further discloses establishing a translation table whereby an address

formatted in the first protocol has a one-for-one correspondence with an address

formatted in the second protocol **(See sections 5.1.1-5.1.2 and Figures 4-8 of**

Singh et al. for reference to resolving and store the addresses of the H.323

devices with the address of the SIP devices in the interworking

gatekeeper's database). Singh et al. also discloses processing the request in

accordance with the translation table **(See section 5.2.3 and Figure 10 of Singh**

et al. for reference to processing the SETUP message). Singh et al. further

discloses permitting communication between the first and second endpoints

using a reliable transport protocol **(See section 5.2.3 of Singh et al. for**

reference to communicating between the H.323 and SIP terminals using

RTP). Singh et al. does not specifically disclose establishing a state machine in

memory with messages categorized as one of a triggering message for a

predetermined action, a non-triggering message, and an error message.

  With respect to claims 4 and 11, Singh et al. does not discloses

establishing a state machine in memory with messages categorized as one of a

triggering message for a predetermined action, a non-triggering message, and an

unexpected message.

With respect to claim 16, Singh et al. does not disclose the interworking

gateway server comprising a state machine and a data processor.

With respect to claims 1, 4, 8, 11, 14, and 16, Baker et al., in the field of

communications, discloses using an interworking switch with a data processor an

a memory for storing a state machine **(See column 4 line 3 to column 5 line 7**

and Figures 1 and 2 of Baker et al. for reference to interworking switch 110

comprising a CPU, which is a data process, and a memory 116 storing a

state machine, which is shown in Figure 2). The state machine of Baker

inherently has messages that are categorized as one of triggering, non-

triggering, or unexpected **(See column 4 line 3 to column 5 line 7 and Figure 2**

of Baker et al. for reference to messages, such as registration, registration

failed, deregistration, etc., that, according to the current state of the state

machine are interpreted to trigger a state transition, not trigger a state

transition, or are an unexpected message for the current state). Using a

state machine stored in a memory and implemented by a processor has the

advantage of providing a physical means to process any incoming messages to a

interworking gateway by predefining all actions to be taken in response to the

incoming messages so that every incoming message will correspond to an action

to be taken.

It would have been obvious for one of ordinary skill in the art at the time of

the invention, when presented with the work of Baker et al., to combine the state

machine of Baker et al., with the interworking gateway method of Singh et al.,

with the motivation being to provide a physical means to process any incoming

messages to a interworking gateway by predefining all actions to be taken in response to the incoming messages so that every incoming message will correspond to an action to be taken.

With respect to claims 2 and 9, Singh et al. discloses the interworking server comprising a gateway server **(See section 5.1.2 and Figure 6 of Singh et al. for reference to IWF containing a gatekeeper, which is a gateway server)**.

With respect to claims 3 and 10, Singh et al. discloses a media switching fabric for switching media terminated at the interworking server **(See section 5 and Figure 1 of Singh et al. for reference to the IWF architecture comprising a fabric to switch messages between H.323 terminals and SIP terminals)**.

With respect to claim 5, Singh et al. discloses translating an SIP address to an H.323 address **(See section 5.1.2 and Figure 7 of Singh et al. for reference to address resolution from SIP to H.323)**.

With respect to claim 6, Singh et al. discloses receiving SIP address data from an SIP server for storage in the memory **(See section 5.1.2 and Figure 7 of Singh et al. for reference to receiving SIP address data from an SIP server)**.

With respect to claim 12, Singh et al. discloses translating an H.323 endpoint address to an SIP endpoint address **(See section 5.1.2 and Figure 8 of Singh et al. for reference to address resolution from H.323 to SIP)**.

With respect to claim 13, Singh et al. discloses receiving H.323 endpoint address data from an H.323 gatekeeper **(See section 5.1.2 and Figures 6 and 8 of Singh et al. for reference to receiving address data from an H.323 gatekeeper, which is part of the IFW).**

With respect to claim 15, Singh et al. discloses switching any media terminated at the interworking gateway to an addressed endpoint **(See section 5 and Figure 1 of Singh et al. for reference to the IWF architecture comprising a fabric to switch messages between addressed H.323 terminals and SIP terminals).**

With respect to claim 17, Singh et al. discloses a media switching fabric for switching media terminated at the interworking gateway server **(See section 5 and Figure 1 of Singh et al. for reference to the IWF architecture comprising a fabric to switch messages between H.323 terminals and SIP terminals).**

With respect to claim 18, Singh et al. discloses that the first protocol based network is an H.323 protocol and the second protocol based network is a SIP protocol based network **(See the abstract of Singh et al. for reference to interworking between SIP and H.323).**

Allowable Subject Matter

3.   Claims 7 and 19-20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
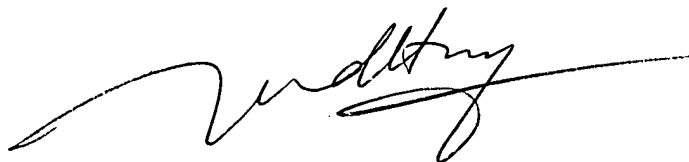
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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